

## EAST Search History

| Ref # | Hits | Search Query   | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|--|---|------------------|---------|------------------|
| L1    | 21   | (pole near2 tip or poletip) near4 protrusion same ((thermal\$2 or heat\$3) near3 layer)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 08:26 |
| L2    | 25   | (pole near2 tip or poletip) near4 protrusion same ((thermal\$2 or heat\$3) near3 (layer or film))  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 08:25 |
| L4    | 20   | ("20010043446"   "20020067571"   "20030048579"   "20030067716"   "20040027717"   "3770403"   "5640292"   "5757590"   "5930086"   "5936811"   "6103136"   "6130863"   "6158107"   "6259583"   "6349014"   "6381094"   "6396660"   "6538843"   "6661621").PN. OR ("6914750").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                            | OR               | ON      | 2006/10/13 08:26 |
| L5    | 2091 | (360/126).CCLS.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/10/13 08:33 |
| L6    | 74   | L5 and ((poletip or pole near2 tip) near5 (protruding or protrusion))  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 08:33 |
| L7    | 66   | L6 and (thermal\$2 or heat\$3)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 09:11 |

## EAST Search History

|     |      |   |   |    |     |                  |
|-----|------|---|---|----|-----|------------------|
| L8  | 28   | (US-20010001586-\$ or<br>US-20040027717-\$ or<br>US-20040060167-\$ or<br>US-20040223257-\$ or<br>US-20040252396-\$ or<br>US-20050088784-\$ or<br>US-20050201001-\$ or<br>US-20050225897-\$).did. or<br>(US-5781383-\$ or US-5793578-\$ or<br>US-5872684-\$ or US-5935644-\$ or<br>US-6181514-\$ or US-6212040-\$ or<br>US-6226149-\$ or US-6377423-\$ or<br>US-6867940-\$ or US-6894871-\$ or<br>US-6909578-\$ or US-7023632-\$ or<br>US-7023645-\$ or US-7035046-\$ or<br>US-7061706-\$ or US-7064933-\$ or<br>US-6687083-\$ or US-6754050-\$ or<br>US-6760191-\$ or US-6859343-\$).did. | US-PGPUB;<br>USPAT                                      | OR | ON  | 2006/10/13 08:34 |
| L9  | 21   | (US-20060102956-\$ or<br>US-20050225897-\$ or<br>US-20040027717-\$ or<br>US-20030048579-\$ or<br>US-20020067571-\$ or<br>US-20010043446-\$ or<br>US-20040012894-\$ or<br>US-20040252396-\$).did. or<br>(US-6989963-\$ or US-6914750-\$ or<br>US-6661621-\$ or US-6396660-\$ or<br>US-6381094-\$ or US-5930086-\$ or<br>US-7035046-\$ or US-6894871-\$ or<br>US-6859343-\$ or US-6842308-\$ or<br>US-5687045-\$ or US-6909578-\$ or<br>US-6760191-\$ or US-6754050-\$).did.  | US-PGPUB;<br>USPAT                                      | OR | ON  | 2006/10/13 08:34 |
| L10 | 40   | L8 L9   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/10/13 08:34 |
| L11 | 52   | L7 not L10  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/10/13 09:10 |
| L12 | 2632 | (360/122).CCLS.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/10/13 09:10 |

## EAST Search History

|     |      |   |   |    |     |                  |
|-----|------|---|---|----|-----|------------------|
| L13 | 1002 | (360/123).CCLS.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/10/13 09:11 |
| L14 | 3526 | 12 13   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/10/13 09:11 |
| L15 | 719  | L14 and (thermal\$2 or heat\$3)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/10/13 09:17 |
| L16 | 62   | 15 and diffus\$4  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/10/13 09:18 |
| S50 | 0    | (pole near2 tip or poletip) near4<br>protrusion same (thermal\$2 near3<br>layer) and ((rotate or rotating or<br>rotational) near4 (force or moment))  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/08/07 09:16 |
| S51 | 0    | (pole near2 tip or poletip) near4<br>protrusion same ((thermal\$2 or<br>heat\$3) near3 layer) and ((rotate or<br>rotating or rotational) near4 (force or<br>moment))  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/08/07 09:17 |
| S52 | 20   | (pole near2 tip or poletip) near4<br>protrusion same ((thermal\$2 or<br>heat\$3) near3 layer)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/10/13 08:24 |
| S53 | 24   | (pole near2 tip or poletip) near4<br>protrusion same ((thermal\$2 or<br>heat\$3) near3 (layer or film))   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/10/13 08:25 |
| S54 | 0    | ("2005/0225897").URPN.  | USPAT   | OR | ON  | 2006/08/07 09:25 |
| S55 | 2    | ("2004/0027717").URPN.  | USPAT   | OR | ON  | 2006/08/07 09:29 |
| S56 | 19   | ("20010043446"   "20020067571"  <br>"20030048579"   "20030067716"  <br>"20040027717"   "3770403"  <br>"5640292"   "5757590"   "5930086"  <br>"5936811"   "6103136"   "6130863"  <br>"6158107"   "6259583"   "6349014"  <br>"6381094"   "6396660"   "6538843"  <br>"6661621").PN. OR ("6914750").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                            | OR | ON  | 2006/08/07 09:31 |

## EAST Search History

|     |    |   |                              |    |    |                  |
|-----|----|---|------------------------------|----|----|------------------|
| S57 | 20 | ("5083365"   "5473486"   "5687045"   "5710683"   "5712565"   "5764056"   "5896243"   "5898106"   "5898542"   "5909340"   "5949627"   "5963401"   "5986851"   "6130809"   "6219200"   "6373659"   "6473265"   "6477007").<br>PN. OR ("6842308").URPN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/08/07 09:42 |
| S58 | 18 | (US-20060102956-\$ or<br>US-20050225897-\$ or<br>US-20040027717-\$ or<br>US-20030048579-\$ or<br>US-20020067571-\$ or<br>US-20010043446-\$ or<br>US-20040012894-\$).did. or<br>(US-6989963-\$ or US-6914750-\$ or<br>US-6661621-\$ or US-6396660-\$ or<br>US-6381094-\$ or US-5930086-\$ or<br>US-7035046-\$ or US-6894871-\$ or<br>US-6859343-\$ or US-6842308-\$ or<br>US-5687045-\$).did.  | US-PGPUB;<br>USPAT           | OR | ON | 2006/08/07 09:42 |
| S59 | 28 | (US-20010001586-\$ or<br>US-20040027717-\$ or<br>US-20040060167-\$ or<br>US-20040223257-\$ or<br>US-20040252396-\$ or<br>US-20050088784-\$ or<br>US-20050201001-\$ or<br>US-20050225897-\$).did. or<br>(US-5781383-\$ or US-5793578-\$ or<br>US-5872684-\$ or US-5935644-\$ or<br>US-6181514-\$ or US-6212040-\$ or<br>US-6226149-\$ or US-6377423-\$ or<br>US-6867940-\$ or US-6894871-\$ or<br>US-6909578-\$ or US-7023632-\$ or<br>US-7023645-\$ or US-7035046-\$ or<br>US-7061706-\$ or US-7064933-\$ or<br>US-6687083-\$ or US-6754050-\$ or<br>US-6760191-\$ or US-6859343-\$).did. | US-PGPUB;<br>USPAT           | OR | ON | 2006/08/07 09:43 |
| S60 | 22 | (US-20060102956-\$ or<br>US-20050225897-\$ or<br>US-20040027717-\$ or<br>US-20030048579-\$ or<br>US-20020067571-\$ or<br>US-20010043446-\$ or<br>US-20040012894-\$ or<br>US-20040252396-\$).did. or<br>(US-6989963-\$ or US-6914750-\$ or<br>US-6661621-\$ or US-6396660-\$ or<br>US-6381094-\$ or US-5930086-\$ or<br>US-7035046-\$ or US-6894871-\$ or<br>US-6859343-\$ or US-6842308-\$ or<br>US-5687045-\$ or US-6909578-\$ or<br>US-6760191-\$ or US-6754050-\$).did.  | US-PGPUB;<br>USPAT           | OR | ON | 2006/08/07 09:53 |

## EAST Search History

|     |      |   |   |    |     |                  |
|-----|------|---|---|----|-----|------------------|
| S61 | 2046 | (360/126).CCLS.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/08/07 09:53 |
| S62 | 68   | S61 and ((poletip or pole near2 tip)<br>near5 (protruding or protrusion)) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/08/07 09:54 |
| S63 | 61   | S62 and (thermal\$2 or heat\$3)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/08/07 09:55 |
| S65 | 41   | S59 S60   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/08/07 09:55 |
| S66 | 47   | S63 not S65   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/08/07 09:55 |

## EAST Search History

| Ref # | Hits | Search Query   | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|--|---|------------------|---------|------------------|
| L1    | 2091 | (360/126).CCLS.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/10/13 11:50 |
| L2    | 74   | L1 and ((poletip or pole near2 tip)<br>near5 (protruding or protrusion)) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 11:50 |
| L3    | 66   | L2 and (thermal\$2 or heat\$3)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 11:52 |
| L4    | 2632 | (360/122).CCLS.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/10/13 11:51 |
| L5    | 1002 | (360/123).CCLS.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/10/13 11:51 |
| L6    | 3526 | L4 L5  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 11:51 |
| L7    | 719  | L6 and (thermal\$2 or heat\$3)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 11:51 |
| L8    | 62   | L7 and diffus\$4   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/10/13 11:51 |
| L9    | 10   | L7 and diffus\$4   | US-PGPUB  | OR               | ON      | 2006/10/13 11:51 |
| L10   | 30   | L2 and (thermal\$2 or heat\$3)   | US-PGPUB  | OR               | ON      | 2006/10/13 11:52 |